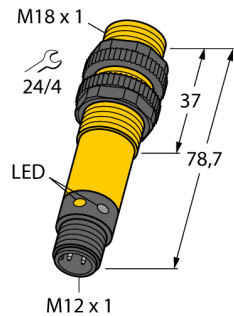


# Photoelectric Sensor

## Diffuse Mode Sensor

### S18RW3DLQ3



- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function

|      |            |
|------|------------|
| Type | S18RW3DLQ3 |
| ID   | 3036876    |

|                |                  |
|----------------|------------------|
| Optical data   |                  |
| Function       | Proximity switch |
| Operating mode | Diffuse          |
| Light type     | IR               |
| Wavelength     | 880 nm           |
| Range          | 2...300 mm       |

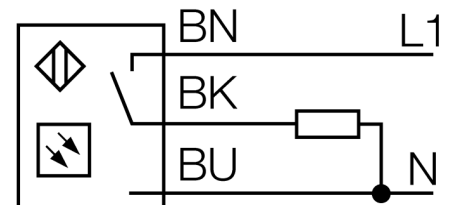
|                              |                              |
|------------------------------|------------------------------|
| Electrical data              |                              |
| Operating voltage $U_s$      | 20...250VAC                  |
| AC rated operational current | ≤ 200 mA                     |
| Output function              | Dark operation, Relay output |
| Switching frequency          | ≤ 40 Hz                      |
| Readiness delay              | ≤ 100 ms                     |
| Response time typical        | < 16 ms                      |

|                       |                                 |
|-----------------------|---------------------------------|
| Mechanical data       |                                 |
| Design                | Tube, S18                       |
| Dimensions            | Ø 18 x 78.7 mm                  |
| Housing material      | Plastic, Thermoplastic material |
| Lens                  | plastic, Acrylic                |
| Electrical connection | Connector, M12 × 1, PVC         |
| Number of cores       | 5                               |
| Ambient temperature   | -40...+70 °C                    |
| Protection class      | IP69                            |

|                        |             |
|------------------------|-------------|
| Special features       |             |
| Encapsulated           |             |
| Wash down              |             |
| Power-on indication    | LED, Green  |
| Switching state        | LED, Yellow |
| Excess gain indication | LED         |

|                 |             |
|-----------------|-------------|
| Tests/approvals |             |
| Approvals       | CE, UL, CSA |

#### Wiring Diagram

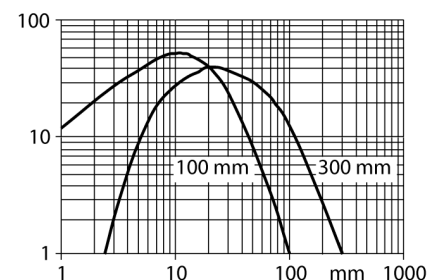


#### Functional principle

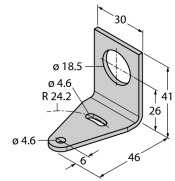
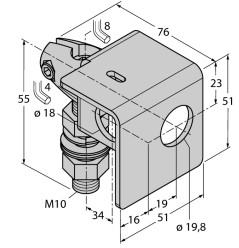
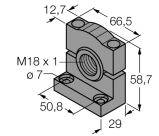
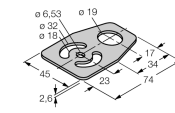
The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

#### Excess gain curve

Excess gain in relation to the distance



## Accessories

| Type code   | Ident no. |                                                                                 | Dimension drawing                                                                     |
|-------------|-----------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SMB18A      | 3033200   | Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread   |    |
| SMB18AFAM10 | 3012558   | Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm |    |
| SMB3018SC   | 3053952   | Mounting bracket, PTB black, for sensors with 18 mm thread                      |   |
| SMBAMS18P   | 3073134   | Mounting bracket, stainless steel, for sensors with 18 mm thread                |  |